Applicant respectfully requests reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks.

Claims 1-5, 7-51, 53-54, 56-62, 64-75, and 77-80 are pending in the application, with claims 1, 7, 19, 32, 36, 45, 47, 49, 51, 57, 62, 69, 73, and 78 being independent. Applicant cancels claims 6 and 52 without prejudice, waiver, or disclaimer of the subject matter. Applicant amends claims 1, 7, 18, 19, 24-27, 32-51, 53-54, 56-57, 60-62, 64-70, 72-73, and 77-80 to further clarify features of the claimed subject matter. The original specification and drawings support these claim amendments at least at page 1, lines 5-7; page 9, line 21-page 10, line 6; page 13, line 25-page 14, line 4; page 14, lines 7-19; page 15, lines 8-22; page 16, line 8-page 17, line 9; page 28, line 17-page 29, line 4; and page 33, line 2-page 34, line 2. These revisions introduce no new matter.

Applicant's amendments and remarks after Final are appropriate under 37 C.F.R. §1.116 because they address the Office's remarks in the Final Action, and thus could not have been presented earlier.

Claim Rejections 35 U.S.C. §102

It is only after the USPTO makes a demonstration of unpatentability that the burden shifts to the applicant to rebut that showing. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992)("[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability. If that burden is met, the burden of coming forward with evidence or argument shifts to the applicant.").

The MPEP states that "[a] claim is anticipated **only if each and every element as set forth in the claim is found**, either expressly or inherently described, in a single prior art reference. . . . The identical invention must be shown in as complete detail as is contained in the . . . claim. . . . The elements must be arranged as required by the claim . . . .". MPEP §2131 (emphasis added). Consequently, under the guidelines of the MPEP set forth above, if there is *any* substantial difference between the prior art cited by the Office and an applicant's claim, the prior art does NOT establish a *prima facie* case of anticipation and, barring other rejections, such claim is allowable over the cited prior art.

Claims 7-44, 46-54, 56-62, 64-75, and 77-80 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2008/0013919 (Boston et al). Applicant respectfully traverses the rejection.

Independent Claim 7

Without conceding the propriety of the rejection and in the interest of expediting prosecution of the application, independent claim 7 is amended and is believed to be patentable over the cited reference.

Independent claim 7 recites a method implemented on a playback device by a processing unit configured to execute computer-executable instructions that, when executed by the processing unit, direct the playback device to perform acts comprising:

> obtaining, from a source, audio/video data for a presentation to a user;
> obtaining, from the source, a set of executable instructions associated with the audio/video data, wherein *the set of executable instructions are loaded by the playback device when the source is initially accessible to the playback device*;
> *obtaining programmatic data associated with the audio/video data, wherein temporal location identifiers from a*

> *stream of the audio/video data identify associated programmatic data*;
>   *executing the set of executable instructions by the processing unit in conjunction with presenting the audio/video data to the user*; and
>   enhancing the presentation of the audio/video data to the user based on the programmatic data processed by the playback device.

Applicant respectfully submits that no such method is disclosed by Boston.

Boston is directed to "methods for automated personal video recording ... [that] include scheduling a show for a user having allocated storage space on a personal video recorder ("PVR") optionally including free space, in which the show has a storage space requirement that exceeds the user's free space, and the PVR is coupled for data communications to a storage space provider, and transmitting to the storage space provider an order to record the show through the storage space provider in storage space on a remote PVR that is coupled for data communications to the storage space provider" (paragraph 0019).

The Office asserts that paragraph 105 of Boston discloses "obtaining, from the source, a set of executable instructions associated with the audio/video data" (Office Action, page 5). Paragraph 105 of Boston discusses that "'Show' means any recordable or distributable electronic or digital content including television broadcasts, movies, CD contents, DVD recordings, cable transmission, satellite transmissions, commercial video clips, audio, multi-media programming, and the like. Shows include any image or series of images delivered to users through any mechanism or means, including associated audio or other multi-media content." Applicant respectfully notes that paragraph 105 of Boston does not include any discussion of executable instructions. Assuming for the sake of argument that any analogy between paragraph 105 of Boston and Applicant's claim is appropriate, Applicant respectfully submits that the "shows" discussed in Boston are analogous to audio/video data. Accordingly,

Boston does not disclose "*obtaining, from the source, a set of **executable instructions** associated with the audio/video data, wherein the set of executable instructions are **loaded by the playback device when the source is initially accessible** to the playback device*," as recited in Applicant's amended claim 7.

The Office asserts that paragraph 0121 of Boston discloses "obtaining programmatic data" (Office Action, page 5). Paragraph 0121 of Boston is reproduced below for convenience.

> The example PVR of FIG. 2a includes a codec 176, which can take the form of a video card plugged into the system bus of a personal computer, or other forms as will occur to those of skill in the art. The codec 176 provides video and audio output from recorded shows in storage space 166 to an input/output interface 178. The codec 176 can also provide changes in video compression or video quality as needed in particular instances. The input/output interface provides video and audio output to a display device 180. In the case of PVRs implemented with connection to televisions, the display device 180 is a television. In the case of PVRs implemented as general purpose computers, the display device is often implemented as a computer screen. The display device 180 is any device, as will occur to those of skill in the art, capable of displaying video and audio content.

Applicant respectfully disagrees with the assertion that paragraph 0121 of Boston discloses programmatic data. Moreover, Applicant has searched and failed to find any disclosure in Boston of any kind of data which is associated with audio/video data using temporal identifiers. Accordingly, Boston does not disclose "*obtaining **programmatic data associated with the audio/video data**, wherein **temporal location identifiers from a stream of the audio/video data identify associated programmatic data**,*" as recited in Applicant's amended claim 7.

The Office asserts that paragraph 0121 of Boston discloses "executing the set of executable instructions in conjunction with playback the audio/video data" (Office Action, page 6). Examination of paragraph 0121 of Boston above shows no discussion of executable

instructions. The cited portion of Boston also lacks a discussion of executing instructions in conjunction with playing audio/video data. However, Applicant's specification discloses that "[i]n addition to the AV content, a set of instructions is also made available to the playback device. The set of instructions, when executed by the playback device, causes the playback device to process programmatic data associated with the AV content" (page 3, lines 4-7). Accordingly, Boston does not disclose "*executing the set of* **executable instructions by the processing unit in conjunction with presenting** *the audio/video data to the user*," as recited in Applicant's amended claim 7.

Accordingly, each and every feature of amended claim 7 is not disclosed, and therefore Boston does not anticipate Applicant's amended claim 7. Applicant respectfully requests withdrawal of the §102 rejection.

Independent Claim 19

Without conceding the propriety of the rejection and in the interest of expediting prosecution of the application, independent claim 19 is amended and is believed to be patentable over the cited reference.

Independent claim 19 recites a method implemented on a device by a processing unit configured to execute computer-executable instructions that, when executed by the processing unit, direct the device to perform acts comprising:

> receiving audio/video content for playback;
> receiving programmatic data associated with the audio/video content, wherein *temporal location identifiers from a stream of the audio/video data identify associated programmatic data* and the *programmatic data comprises information describing an enhancement to the audio/video content to generate an enhanced audio/video content by adding the programmatic data to the audio/video content*;

receiving a set of instructions to enhance playback of the audio/video content;

executing the set of instructions by the processing unit, wherein executing the set of that instructions causes the device to process the programmatic data; and

generating the enhanced audio/video content.

Applicant respectfully submits that no such method is disclosed by Boston.

For at least the same reasons asserted above with respect to independent claim 7, Boston does not disclose "*temporal location identifiers from a stream of the audio/video data [that] identify associated programmatic data,*" as recited in Applicant's amended claim 19.

The Office asserts that paragraph 0121 of Boston discloses "adding the programmatic data to the audio/video content to generate the enhanced audio/video content" (Office Action, page 8). Applicant respectfully disagrees. Paragraph 0121 of Boston is reproduced above. The cited portion of Boston includes no discussion of adding data to generate enhanced audio/video content.

In contrast, Applicant's specification discloses addition of programmatic data to enhance content stream quality on page 13, line 15 to page 14, line 2.

The quality of the video in the AV output from content player 102 can be enhanced by using programmatic data in the form of an additional track(s) or stream(s) that, when combined with a track of the AV content, improves the quality of the picture and/or the quality of the audio output by using a processor of content player 102. As the AV content is received, programmatic data control module 108 adds in additional detail (based on the programmatic data) to the audio and/or video track of the AV content in order to improve the quality of the particular track. The programmatic data includes, for example, data describing the difference between the improved quality version of the video (and/or audio) and the track(s) of the AV content. So, when **the programmatic data is combined with (e.g., added to) the AV content, the improved quality video (and/or audio) is obtained**. (emphasis added)

Therefore, Boston does not disclose "*programmatic data [which] comprises information describing an enhancement to the audio/video content to generate an **enhanced audio/video content by adding the programmatic data** to the audio/video content*," as recited in Applicant's amended claim 19.

Accordingly, each and every feature of amended claim 19 is not disclosed, and therefore Boston does not anticipate Applicant's amended claim 19. Applicant respectfully requests withdrawal of the §102 rejection.

Independent Claim 32

Without conceding the propriety of the rejection and in the interest of expediting prosecution of the application, independent claim 32 is amended and is believed to be patentable over the cited reference.

Independent claim 32 recites one or more computer readable storage media having stored thereon a plurality of instructions that, when executed by one or more processors, causes the one or more processors to:

> access audio/video content obtained from a digital versatile disc (DVD);
> identify *a current portion of the audio/video content being played back*;
> identify programmatic data that corresponds to the current portion of the audio/video content being played back, wherein *temporal location identifiers from a stream of the audio/video content identify associated programmatic data*; and
> *enhance presentation of the current portion of the audio/video content based at least in part on the identified programmatic data*, wherein executing the plurality of instructions causes the one or more processors to process the programmatic data to enhance presentation of the current portion of the audio/video content.

Applicant respectfully submits that no such computer readable storage media is disclosed by Boston for at least the reasons asserted above with respect to independent claims 7 and 19.

Additionally, Boston discusses "a video card... [that] provides video and audio output from recorded shows in storage space [and] can also provide changes in video compression or video quality" (paragraph 0120). Boston appears to discuss placing shows in and removing shows from a storage with possible video compression. Applicant has searched and can find no disclosure in Boston of differential treatment for a portion of audio/video content currently being viewed by a user. Accordingly, Boston does not disclose "*a current portion of the audio/video content being played back [and] enhance[ing] presentation of the current portion of the audio/video content*," as recited in Applicant's amended claim 32.

Accordingly, each and every feature of amended claim 32 is not disclosed, and therefore Boston does not anticipate Applicant's amended claim 32. Applicant respectfully requests withdrawal of the §102 rejection.

Independent Claim 36

Without conceding the propriety of the rejection and in the interest of expediting prosecution of the application, independent claim 36 is amended as proposed during the interview and is believed to be patentable over the cited reference.

Independent claim 36 recites a computer readable storage media having stored thereon a data structure, comprising:

> a first portion containing audio data and video data that, when played back, generates an audio/video content stream;
> a second portion containing associated programmatic data, wherein *temporal location identifiers from the audio data and video data identify the associated programmatic data*; and

a third portion containing a plurality of instructions for processing the associated programmatic data, wherein *the plurality of instructions, when executed, cause processing of the programmatic data, and the programmatic data to process is determined based on a current location of the audio/video content stream being played back*.

Applicant respectfully submits that no such computer readable storage media is disclosed by Boston for least the reasons asserted above with respect to independent claims 7 and 32.

The Office rejects claim 36 in part over paragraph 0090 of Boston. Paragraph 0090 Boston discusses "DVD storage... [and] CD-ROM storage." However, Applicant's specification discloses that elements beyond those found in a legacy DVD or CD.

The enhanced functionality for AV content playback described herein is made possible by use of the set of instructions and programmatic data associated with the AV content. However, the structure of the AV content itself need not be altered from current standards. For example, the **AV content on a DVD that supports the enhanced functionality described herein would be the same audio and video tracks as on a DVD that does not support the enhanced functionality** described herein. Thus, if a DVD that supports the enhanced functionality described herein is played back on a DVD player that does not understand the programmatic data or the set of instructions (such DVD players are also referred to as legacy devices), the DVD player can still access and playback the AV content from the DVD. However, **if a DVD that supports the enhanced functionality described herein is played back on a DVD player that does understand the programmatic data and the set of instructions, then the enhanced functionality described herein is made available** to the user of that DVD player. (Applicant's specification, page 8, lines 3-16; emphasis added)

Applicant's claim 36 recites "*computer readable storage media having stored thereon a data structure, comprising: a first portion... a second portion... and a third portion.*" Assuming for the sake of argument that Boston discusses elements similar to those found in Applicant's "first

portion," Applicant respectfully submits that the "second portion" and the "third portion" as well as the interaction between all three portions is not disclosed in Boston.

Accordingly, each and every feature of amended claim 36 is not disclosed, and therefore Boston does not anticipate Applicant's amended claim 36. Applicant respectfully requests withdrawal of the §102 rejection.

Independent Claim 47

Without conceding the propriety of the rejection and in the interest of expediting prosecution of the application, independent claim 47 is amended and is believed to be patentable over the cited reference.

Independent claim 47 recites a method implemented on a device by a processing unit configured to execute computer-executable instructions that, when executed by the processing unit, direct the device to perform acts comprising:

> obtaining audio/video content to be presented to a user;
> obtaining programmatic data associated with the audio/video content, wherein *temporal location identifiers from a stream of the audio/video content identify associated programmatic data*; and
> executing, by the processing unit, a set of executable instructions that causes processing of the programmatic data to *create an HDTV (High Definition TV) version of a video of the audio/video content by adding additional detail based on the programmatic data*, wherein the programmatic data comprises:
> additional information describing *regions of the HDTV version absent* from the audio/video content *due to an aspect ratio difference* between the video of the audio/video content and the HDTV version; *and*
> data describing a *difference between a picture quality* of the video of the audio/video content and an increased picture quality for the HDTV version.

Applicant respectfully submits that no such method is disclosed by Boston for at least the reasons asserted above with respect to independent claims 7 and 36.

The Office cites paragraphs 0172 and 0173 of Boston as grounds the rejection for Applicant's claim 47. The cited portions of Boston are reproduced below for convenience.

> Record 440 shows an estimated initial raw compression level 422 in the source stream of 80:1 estimated on the basis of encoding according to MPEG-2, colorspace size 4:4:4 or `48,` frame rate 428 of 30 frames/second, resolution of 1930 x 1080 pixels (an HDTV standard), with `High` audio quality 432. Record 440 is shown with a relative compression of (1) with respect to itself. (Boston, paragraph 0172)

> The target records, records 442 through 450, illustrated compression levels supported by an exemplary PVR with respect to a video source of the kind represented in the source record 440. Record 442, for example, shows an estimated absolute compression level 422 of 480:1, or a compression level of (4) relative to the source stream, estimated on the basis of encoding according to MPEG-2, colorspace size `48,` frame rate 428 of 30 frames/second, resolution of 720 x 480 pixels (an NTSC video standard), with `High` audio quality 432. In other words, **recompressing the source stream using a resolution reduced from 1930 x 1080 (HDTV) to 720 x 480 (a high quality of NTSC video) reduced projected space requirement for a subject show by a factor of six.** This is a useful demonstration of the fact that, although algorithmic compression alone can result in absolute compression ratios in the range of approximately 100 to 200, reductions in parameters other than compression technique as such, factors such as, for example, colorspace, frame rate, resolution, and audio quality, can result in very large overall compression levels. (Boston, paragraph 0173; emphasis added)

Boston appears to discuss compression and space requirements of storing HDTV and NTSC video. However, Boston does not disclose "*creat[ing] an HDTV (High Definition TV) version of a video of the audio/video content by adding additional detail based on the programmatic data,*" as recited in Applicant's amended claim 47. Boston also does not

disclose the specific additional detail as being "*additional information describing **regions of the HDTV version absent** from the audio/video content due to an aspect ratio difference between the video of the audio/video content and the HDTV version; **and** data describing a **difference between a picture quality** of the video of the audio/video content and an increased picture quality for the HDTV version*," as recited in Applicant's amended claim 47.

Accordingly, each and every feature of amended claim 47 is not disclosed, and therefore Boston does not anticipate Applicant's amended claim 47. Applicant respectfully requests withdrawal of the §102 rejection.

Independent Claim 49

Without conceding the propriety of the rejection and in the interest of expediting prosecution of the application, independent claim 49 is amended and is believed to be patentable over the cited reference.

Independent claim 49 recites a method implemented on a device by a processing unit configured to execute computer-executable instructions that, when executed by the processing unit, direct the device to perform acts comprising:

> obtaining audio/video content having a first aspect ratio to be presented to a user;
> obtaining programmatic data associated with the audio/video content, wherein *temporal location identifiers from a stream of the audio/video content identify associated programmatic data*; and
> executing, by the processing unit, a set of instructions that use the programmatic data to convert the video of the audio/video content from the first aspect ratio to a second aspect ratio having at least one dimension smaller than the first aspect ratio by removing at least one of rows of pixels or columns of pixels from the audio/video content, wherein *the programmatic data identifies which rows of pixels or columns of pixels to*

> *remove* for each image of a video track of the audio/video content.

Applicant respectfully submits that no such method is disclosed by Boston for least the reasons asserted above with respect to independent claim 7.

Additionally, the discussion in Boston paragraph 0173 of "a resolution reduced from 1930 x 1080 (HDTV) to 720 x 480 (a high quality of NTSC video)" does not discuss which pixels are removed to achieve the reduced resolution. For example, a 720 x 480 rectangle could be situated within a 1930 x 1080 rectangle a number of positions such as upper left, lower right, centered, etc. Therefore, Boston does not disclose "*programmatic data [that] identifies __which__ rows of pixels or columns of pixels to remove for each image of a video track of the audio/video content*," as recited in Applicant's amended claim 49.

Accordingly, each and every feature of amended claim 49 is not disclosed, and therefore Boston does not anticipate Applicant's amended claim 49. Applicant respectfully requests withdrawal of the §102 rejection.

Independent Claim 51

Without conceding the propriety of the rejection and in the interest of expediting prosecution of the application, independent claim 51 is amended as proposed during the interview and is believed to be patentable over the cited reference.

Independent claim 51 recites a method implemented on a device by a processing unit configured to execute computer-executable instructions that, when executed by the processing unit, direct the device to perform acts comprising:

> obtaining audio/video content to be presented to a user;
> obtaining programmatic data associated with the audio/video content, wherein *temporal location identifiers from a stream of*

the audio/video content identify associated programmatic data;
and

    executing, by the processing unit, a set of instructions that use the programmatic data to incorporate popup information into that video/content of the audio/video content, wherein the ***popup information overlays the audio/video content and comprises descriptions of items displayed as part of the audio/video content that overlay the video content and a link that, when selected by the user, allows the user to purchase an item being displayed as part of the audio/video content***.

Applicant respectfully submits that no such method is disclosed by Boston for least the reasons asserted above with respect to independent claim 7.

Additionally, the grounds of rejection for Applicant's claim 51 cite paragraphs 0112, 0114, 0138, and Fig. 3 of Boston. Applicant respectfully notes that none of paragraphs 0112, 0114, or 0138 discuss popup information. "FIG. 3 [of Boston] illustrates several example **data structures** useful in various embodiments of the present invention" (Boston, paragraph 0123; emphasis added). Accordingly, Boston does not disclose "*popup information [which] overlays the audio/video content and comprises descriptions of items displayed as part of the audio/video content that overlay the video content and a link that, when selected by the user, allows the user to purchase an item being displayed as part of the audio/video content*," as recited in Applicant's amended claim 51.

Accordingly, each and every feature of amended claim 51 is not disclosed, and therefore Boston does not anticipate Applicant's amended claim 51. As discussed during the interview, Applicant respectfully requests withdrawal of the §102 rejection.

Without conceding the propriety of the rejection and in the interest of expediting prosecution of the application, independent claim 57 is amended and is believed to be patentable over the cited reference.

Independent claim 57 recites a method performed by a processing unit of a content player, the processing unit configured to execute computer-executable instructions that, when executed by the processing unit, direct the content player to perform acts comprising:

> obtaining audio/video content having a unique identifier, the audio/video content to be presented to a user;
> obtaining programmatic data associated with the audio/video content, wherein *temporal location identifiers from a stream of the audio/video content identify associated programmatic data*;
> executing, by the processing unit, a set of instructions associated with the unique identifier, wherein *the instructions when executed, cause the programmatic data to display popup information when playback of the audio/video content is paused*; and
> storing an association between the unique identifier and the set of instructions in a memory of the content player.

Applicant respectfully submits that no such method is disclosed by Boston for at least the reasons asserted above with respect to independent claims 7 and 51.

Additionally, Applicant has searched and failed to find any disclosure in Boston of "*display[ing]* **popup information** <u>**when**</u> playback of the audio/video content is **paused**," as recited in amended claim 57.

Accordingly, each and every feature of amended claim 57 is not disclosed, and therefore Boston does not anticipate Applicant's amended claim 57. Applicant respectfully requests withdrawal of the §102 rejection.

Independent Claim 62

Without conceding the propriety of the rejection and in the interest of expediting prosecution of the application, independent claim 62 is amended and is believed to be patentable over the cited reference.

Independent claim 62 recites a method implemented on a device by a processing unit configured to execute computer-executable instructions that, when executed by the processing unit, direct the device to perform acts comprising:

> obtaining audio/video content to be presented to a user;
> obtaining programmatic data associated with the audio/video content, wherein *temporal location identifiers from a stream of the audio/video content identify associated programmatic data* and the programmatic data comprises *data identifying important scenes of the audio/video content that are important to a plot of the audio/video content*; and
> executing a set of instructions that, when executed, present, to the user, the important scenes of the audio/video content as identified by the programmatic data, wherein the *device scans through the important scenes in response to a user request*.

Applicant respectfully submits that no such method is disclosed by Boston for at least the reasons asserted above with respect to independent claim 7.

Additionally, as agreed during the interview with respect to independent claim 1, Boston does not disclose "*data identifying important scenes of the audio/video content that are important to a plot of the audio/video content*," as recited in Applicant's amended claim 62.

Furthermore, Applicant's specification discloses that "the user can scan forward to the next important interaction between two characters and content player 102 will start playing the scene at the normal 'play' rate. When the user is ready, he or she can then **scan forward to the next important plot point** (e.g., by pressing a button)" (page 19, lines 19-22; emphasis

added). However, Boston does not disclose a "*device [that] scans through the important scenes in response to a user request*," as recited in Applicant's amended claim 62.

Accordingly, each and every feature of amended claim 62 is not disclosed, and therefore Boston does not anticipate Applicant's amended claim 62. Applicant respectfully requests withdrawal of the §102 rejection.

Independent Claim 69

Without conceding the propriety of the rejection and in the interest of expediting prosecution of the application, independent claim 69 is amended and is believed to be patentable over the cited reference.

Independent claim 69 recites a method implemented on a device by a processing unit configured to execute computer-executable instructions that, when executed by the processing unit, direct the device to perform acts comprising:

> obtaining audio/video content to be presented to a user;
> obtaining programmatic data associated with the audio/video content, wherein *temporal location identifiers from a stream of the audio/video content identify associated programmatic data* and the programmatic data comprises *data identifying important scenes of the audio/video content that are important to a plot of the audio/video content*; and
> executing a set of instructions that, when executed by the processing unit, present, to the user, *a summary of the important scenes of the audio/video content as identified by the programmatic data up to a particular point in the audio/video content*.

Applicant respectfully submits that no such method is disclosed by Boston for least the reasons asserted above with respect to independent claims 7 and 62.

Additionally, the Office asserts that "a summary of important scenes of the audio/video content up to a particular point in the audio/video content" is disclosed by paragraph 0021 and

Fig. 3 element 320 of Boston (Office Action, page 12). However, Boston discusses "methods of personal video recording including receiving in a storage space provider from a personal video recorder ("PVR") an order to record a show on a remote PVR" (paragraph 0021). Boston in fact shows "separate **preference records 320** [which] can support any indication of user preference including, for example, preferences for particular actors 326, preferences for particular title 324, and indications of a user's intensity of preference, encoded as preference Level 328" (paragraph 0137; emphasis added).

Applicant's specification discloses "programmatic data [that] can include data that is a mark-up of plot or important information in the AV content. This mark-up can be, for example, a reference to important scenes of the AV content. A user is thus able to view a "recap" of the "plot points" of the AV content when starting from a point in the middle of the stream. The recap can also serve to give a digested version or summary of the entire AV Stream" (page 28, lines 12-17). Accordingly, Boston does not disclose "*a summary of the important scenes of the audio/video content as identified by the programmatic data up to a particular point in the audio/video content,*" as recited in Applicant's amended claim 69.

Accordingly, each and every feature of amended claim 69 is not disclosed, and therefore Boston does not anticipate Applicant's amended claim 69. Applicant respectfully requests withdrawal of the §102 rejection.

Independent Claim 73

Without conceding the propriety of the rejection and in the interest of expediting prosecution of the application, independent claim 73 is amended and is believed to be patentable over the cited reference.

Independent claim 73 recites a method implemented on a device by a processing unit configured to execute computer-executable instructions that, when executed by the processing unit, direct the device to perform acts comprising:

> obtaining audio/video content to be presented to a user;
> obtaining programmatic data associated with the audio/video content, wherein *temporal location identifiers from a stream of the audio/video content identify associated programmatic data*;
> executing a set of instructions that, when executed by the processing unit, present, to the user, *additional episodic content associated with the audio/video content, wherein the programmatic data identifies the additional episodic content*; and
> charging a fee for access to the additional episodic content.

Applicant respectfully submits that no such method is disclosed by Boston for least the reasons asserted above with respect to independent claim 7.

The Office asserts that paragraph 0021 of Boston discloses "executing a set of instructions that use the programmatic data to allow the user to access additional episodic content associated with the audio/video content" (Office Action, page 13). As discussed above, Boston discusses "a storage space provider from a personal video recorder" (paragraph 0021) but does not disclose additional episodic content. In contrast, Applicant's specification discloses "programmatic data can [which may] include data that allows the user to access additional episodic content associated with the AV content. For example, additional scenes, additional audio tracks or audio streams, the programmatic data for other enhanced functionality described herein, and so forth may be available to the user" (page 30, lines 14-18). Applicant's specification also discloses "episodic download of additional content [which] allows, for example, expanded scenes to be presented to the user, a director's cut version of the AV content to be presented to the user, humorous outtakes to be presented to the user, and so forth" (page 3, lines 23-25). Accordingly, Boston does not disclose "*additional episodic*

content associated with the audio/video content, *wherein the programmatic data identifies the additional episodic content*," as recited in Applicant's amended claim 73.

Accordingly, each and every feature of amended claim 73 is not disclosed, and therefore Boston does not anticipate Applicant's amended claim 73. Applicant respectfully requests withdrawal of the §102 rejection.

Independent Claim 78

Without conceding the propriety of the rejection and in the interest of expediting prosecution of the application, independent claim 78 is amended and is believed to be patentable over the cited reference.

Independent claim 78 recites a system comprising:

> a processor;
> a memory coupled to the processor and configured to store a plurality of modules;
> an audio/video playback module configured to receive a stream of audio/video content for playback; and
> a programmatic data control module configured to:
> receive programmatic data associated with the audio/video content;
> monitor the stream of the audio/video content for *temporal location identifiers to associate the programmatic data with the audio/video content*; and
> *enhance a playback of the audio/video content by adding the programmatic data to the audio/video content, wherein the programmatic data and the audio/video content are part of a same data stream received from a same source.*

Applicant respectfully submits that no such system is disclosed by Boston.

The Office asserts that paragraph 0122 of Boston discloses "identifiers to map the programmatic data to the audio/video content" (Office Action, page 14). The cited portion of Boston is reproduced below for convenience.

The example PVR of FIG. 2a includes an input/output interface 178. The input/output interface 178 in PVRs implemented as general purpose computers is a computer interface including, for example, con, ventional software drivers and computer hardware for controlling output to display devices 180 such as computer screens, as well as user input from user input devices 181 such as computer keyboards and computer mice. In the case of PVRs as set top boxes, an input/output interface 178 comprises, for example, software drivers and computer hardware for controlling displays on display devices 180 such as television screens and user input from user input devices 181 such as remote control devices (like the one illustrated at reference 110 in FIGS. 1a and 1b). (Boston, paragraph 0122)

The cited portion of Boston discusses a hardware device, but does not disclose temporal location identifiers. In contrast Applicant's specification discloses:

During playback of the AV content, programmatic data control module 224 monitors the AV content stream 222 and uses location identifiers from AV content stream 222 to index into local programmatic data stream 226. In one implementation, these **location identifiers are temporal location identifiers**. AV content stream 222 is time indexed in some manner (e.g., in accordance with any of the DVD standards), and this indexing can be used to map or index into the local programmatic data. (Page 9, lines 18-24; emphasis added)

Accordingly, Boston does not disclose "*temporal location identifiers to associate the programmatic data with the audio/video content*," as recited in Applicant's amended claim 78.

Additionally, the Office asserts that paragraph 0121 of Boston discloses an "enhancement [that] is based at least in part on the programmatic data, wherein the programmatic data and the audio/video content are part of a same data stream received from a same source" (Office Action, page 14). However, as discussed above, the cited portion of Boston discusses "a codec 176, which can take the form of a video card" (paragraph 0121). Accordingly, Boston does not disclose "*enhance[ing] a playback of the audio/video content by adding the programmatic data to the audio/video content, wherein the programmatic data*

and the audio/video content are part of a same data stream received from a same source,"
As recited in Applicant's amended claim 78.

Accordingly, each and every feature of amended claim 78 is not disclosed, and therefore Boston does not anticipate Applicant's amended claim 78. Applicant respectfully requests withdrawal of the §102 rejection.

Dependent Claims 8-18, 20-31, 33-35, 37-44, 46, 48, 50, 52-54, 56, 58-61, 64-68, 70-72, 74-75, 77, and 79-80

Applicant includes the elements of **dependent claim 52** in independent claim 51 above and cancels dependent claim 52 without prejudice to or disclaimer of the subject matter recited therein. Accordingly, the rejection of claim 52 is now moot.

Dependent claims 8-18, 20-31, 33-35, 37-44, 46, 48, 50, 53-54, 56, 58-61, 64-68, 70-72, 74-75, 77, and 79-80 depend directly or indirectly from one of independent claims 7, 19, 32, 36, 47, 49, 51, 57, 62, 69, 73, and 78, respectively, and thus, are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in claims 1, 7, 19, 32, 36, 45, 47, 49, 51, 57, 62, 69, 73, and 78 are not disclosed by Boston. Applicant respectfully requests consideration of each dependent claim.

Applicant respectfully requests withdrawal of the §102 rejections.

Claim Rejections 35 U.S.C. §103

Claims 1-6 and 45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2008/0013919 to Boston et al. (hereinafter

"Boston") in view of U.S. Patent No. 6,064,423 to Geng (hereinafter "Geng"). Applicant

respectfully traverses the rejection.

Independent Claim 1

Without conceding the propriety of the rejection and in the interest of expediting

prosecution of the application, independent claim 1 is amended as proposed during the

interview and is believed to be patentable over the cited references.

Independent claim 1 recites a method implemented on a device by a processing unit

configured to execute computer-executable instructions that, when executed by the processing

unit, direct the device to perform acts comprising:

> obtaining audio/video data from a disc;
> presenting the audio/video data to a user;
> obtaining a set of executable software instructions from the disc;
> receiving an input from the user; and
> executing, in response to the input, one or more instructions of the set of executable software instructions to determine how to enhance presentation of the audio/video data currently being played back to the user, wherein executing the one or more instructions of the set of executable software instructions comprises:
> identifying a temporal location of the audio/video data currently being played back;
> identifying programmatic data corresponding to the identified temporal location; and
> enhancing presentation of the audio/video data by using the identified programmatic data associated with the disc as determined by executing the one or more instructions of the set of executable software instructions, wherein the programmatic data comprises:
> > *2D information comprising data for rendering a viewpoint absent from the audio/video data;*
> > *markup data identifying a plot of the audio/video data;*
> > *data identifying an enhanced functionality corresponding to different input and output devices;*

> *informational data comprising biographies and filmographies;*
> *data identifying which content is to be displayed for different rating levels; and*
> *different display format data comprising:*
> *a National Television Standards Committee (NTSC) format or a Phase Alternating Line (PAL) format;*
> *a widescreen format, a letter box format, or a pan and scan format; and*
> *a standard definition format or a High Definition Television HDTV format.*

Applicant respectfully submits that no such method is disclosed, taught, or suggested by Boston and Geng, alone or in combination.

Geng is directed to "displaying large (more than 1 million voxels) volumetric 3D images" (Abstract). Geng discusses an "apparatus for high-resolution volumetric three-dimensional (3D) display using fast spatial light modulators (SLM) and a moving image screen" (column 1, lines 8-11).

As agreed during the interview, Boston and Geng whether taken alone or in combination, fail to disclose, teach, or suggest at least "*markup data identifying a plot of the audio/video data,*" as recited in Applicant's amended claim 1.

Geng discusses that "[o]nce the pulse from the encoder is detected, the host computer controls the SLM start repetitive the projection of 2D image patterns" (column 9, lines 6-8). Even assuming for the sake of argument that Geng uses 2D images in order to display a volumetric 3D image, Geng does not disclose, teach, or suggest "*2D information comprising data for rendering a viewpoint absent from the audio/video data,*" as recited in Applicant's amended claim 1. The Office provides no argument or evidence that Boston compensates for this deficiency in Geng.

Geng discusses a "process and system [to] utilize a sequence of helical slices of a 3D data set to generate a series of 2D images on a reflective surface of the light modulator" (Abstract). In contrast, Applicant's specification discloses:

> Functionality for Different Devices
> Includes data identifying **what enhanced functionality is available** from the programmatic data **based on what devices are available** (e.g., what devices are currently coupled to the content player). For example, different functionality may be available depending on whether a DVD remote control unit is available, a game controller is available, a headset is available, and so forth" (page 33, lines 11-15; emphasis added).

Accordingly, Geng does not disclose, teach, or suggest "*data identifying an enhanced functionality corresponding to different input and output devices,*" as recited in Applicant's amended claim 1. The Office provides no argument or evidence that Boston compensates for this deficiency in Geng.

Applicant has searched and failed to find any disclosure, teaching, or suggestion of biographies or filmographies in Boston or Geng. Accordingly, Boston and Geng whether taken alone or in combination, do not disclose, teach, or suggest "*informational data comprising biographies and filmographies,*" as recited in Applicant's amended claim 1.

The Office asserts that figure 2b of Boston discloses different rating levels (Office Action, page 3). Applicant respectfully disagrees. "FIG. 2b sets forth a pie chart 175 showing and example of allocation of storage space in a residential setting" (Boston, paragraph 0128). Neither Boston nor Geng include any discussion of "ratings." In contrast, Applicant's specification discloses:

> **Different Levels of Content for Different Ratings**
> Includes data identifying which content is to be displayed for which rating. May be in reference to: MPAA (Motion Picture Association of America) or MPA (Motion Picture Association), such as NC-17, R, PG-13, PG, G ratings; ESRB (Entertainment

Software Rating Board), such as T-Teen, M-Mature, E-Everyone, etc.; user-defined ratings, such as Primetime TV, Late-night TV, subscription TV, Made-for-TV, etc." (page 33, lines 20-24; emphasis added).

Accordingly, Boston and Geng whether taken alone or in combination do not disclose "*data identifying which content is to be displayed for different rating levels,*" as recited in Applicant's amended claim 1.

Geng discusses:

"NTSC" stands for a video standard promulgated by the National Television Standards Committee. The Committee is responsible for setting television and video standards in the United States. In Europe and the rest of the world, the dominant television standards are PAL and SECAM. The NTSC video standard defines a composite video signal with a frame rate of 30 frames/second implemented as 60 interlaced half-frames per second. Each frame contains 525 lines and can contain 16 million different colors. A newer digital television standard is called "HDTV" for High Definition Television, supporting higher resolutions than NTSC" (paragraph 0103).

However Applicant's specification discloses "Different Display Formats [which] Includes the data for displaying video in different display formats. For example, may include data for: NTSC (National Television Standards Committee) format or PAL (Phase Alternating Line) format; widescreen format or letterbox format or HDTV (High Definition TV) format; Pan and Scan format; and so forth" (page 33, line 24-page 34, line 2). Accordingly, even though Geng mentions NTSC, PAL, and HDTV, and Geng does not disclose, teach, or suggest "*different display format data comprising: a National Television Standards Committee (NTSC) format or a Phase Alternating Line (PAL) format; a widescreen format, a letter box format, or a pan and scan format; and a standard definition format or a High Definition Television HDTV format,*" as recited in Applicant's amended claim of 1.

The Office asserts that "[i]t would have been obvious to one ordinary skill in the art at the time of the invention was made to combined [sic] Geng invention into Boston et al. in order to have a 3D audio/video data" (Office Action, page 3). Applicant's claim 1 as amended does not recite "3D audio/video data." Accordingly, the motivation to combine the primary and secondary references put forth by the Office is not sufficient rationale to support a §103 rejection.

For all of the above reasons, Applicant respectfully requests withdrawal of the §103 rejection.

Independent Claim 45

Without conceding the propriety of the rejection and in the interest of expediting prosecution of the application, independent claim 45 is amended and is believed to be patentable over the cited references.

Independent claim 45 recites a method performed by a processing unit of a playback device configured to execute computer-executable instructions that, when executed by the processing unit, direct the playback device to perform acts comprising:

> obtaining audio/video content to be presented to a user;
> obtaining programmatic data associated with the audio/video content; and
> responsive to an input from the user, executing a set of instructions by the processing unit of the playback device in conjunction with playing back the audio/video data, wherein the instructions are loaded by the playback device when the audio/video content is initially accessible to the playback device, wherein the set of instructions use the programmatic data to improve a quality of the video of the audio/video content and the programmatic data comprises:
>> 2D information comprising data for rendering a viewpoint absent from the audio/video data;
>> markup data identifying a plot of the audio/video data;

> > ***data identifying an enhanced functionality corresponding to different input and output devices coupled to the playback device;***
> >
> > informational data comprising biographies and filmographies;
> >
> > data identifying which content is to be displayed for different rating levels; and
> >
> > different display format data comprising:
> >
> > a National Television Standards Committee (NTSC) format or a Phase Alternating Line (PAL) format;
> >
> > a widescreen format, a letter box format, or a pan and scan format; and
> >
> > a standard definition format or a High Definition Television HDTV format.

Applicant respectfully submits that no such method is disclosed, taught, or suggested by Boston and Geng, alone or in combination for reasons similar to those asserted above with respect to independent claim 1.

Accordingly, Applicant respectfully requests withdrawal of the §103 rejection.

Dependent Claims 2-6

Applicant includes the elements of **dependent claim 6** in independent claim 1 above and cancels dependent claim 6 without prejudice to or disclaimer of the subject matter recited therein. Accordingly, the rejection of claim 6 is now moot.

Dependent claims 2-5 depend from independent claim 1, and thus, are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in claim 1 are not disclosed, taught, or suggested by Boston and Geng, alone or in combination.

Accordingly, Applicant respectfully requests withdrawal of the §103 rejections.

Applicant respectfully submits that the cited references do not render the claimed subject matter obvious and that the claimed subject matter, is therefore, patentably

distinguishable over the cited references. For all of these reasons, Applicant respectfully requests withdrawal of the §103(a) rejection of these claims.

Conclusion

For at least the foregoing reasons, claims 1-5, 7-51, 53-54, 56-62, 64-75, and 77-80 are in condition for allowance. Applicant respectfully requests reconsideration and withdrawal of the rejections and an early notice of allowance.

If any issue remains unresolved that would prevent allowance of this case, <u>Applicant requests that the Examiner contact the undersigned attorney to resolve the issue</u>.

Respectfully Submitted,
Lee & Hayes, PLLC

Dated: <u>April 22, 2009</u>   By: /Benjamin Keim/

Benjamin A. Keim
Reg. No. 59,217
509-944-4748

Shirley L. Anderson
Reg. No. 57,763
509-944-4758